College of Physicians & Surgeons of Columbia University | *New York, N.Y. 10032*

DEPARTMENT OF BIOCHEMISTRY 630 West 168th Street

July 1, 1969

Dr. Joshua Lederberg
Department of Genetics
Stanford University School of Medicine
Stanford, California 94305

Dear Josh,

Thank you very much for sending us your very interesting column on CO. We especially liked your interpretation of Rodkey's recent finding that fetal hemoglobin has a lower affinity for CO than adult hemoglobin as an indication of "the slow pace of biological evolution."

We have not yet looked into the effect of DPG on CO binding directly. Your comment on DPG is of course, particularly relevant in connection with the so-called Haldane Effect (Douglas, Haldane & Haldane, J. Physiol., 44, 275, 1912) i.e. the increase in oxygen affinity caused by partial saturation of hemoglobin with CO. That DPG could counteract this effect is already hinted at in a recent paper in Science, a Xerox of which is enclosed.

Another relevant item is a letter we just received from Canada (see enclosed Xerox) which was probably stimulated by your article. We are also sending you the other reprints you asked for.

It would be fun to discuss these matters with you in person. Are you coming East this summer? We are going to be around all summer except for a brief visit to Denver during the middle of August.

With kindest regards.

Sincerely yours,

Reinhold

RB md
encl.

Reinhold Benesch